Dennis G. PRIDDY

Appl. No.

09/420,459

Examiner

Luong T. Nguyen

Docket No.

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## **CLAIM AMENDMENTS**

(Currently Amended) A multi-function integrated semiconductor device 1. comprising:

a single integrated circuit containing:

an image sensor including a plurality of light sensitive pixels for capturing an image in still and full-motion digital imaging;

a real-time image processing circuit, responsive to the light sensitive pixels, having as an output a digital representation of the image captured;

an automatic identification circuit within the real-time image processing circuit, responsive to a captured image, to generate an automatic identification indicia of a biometric attribute from a digitized image of said biometric attribute;

a personal database secure to all but a specified user;

means for providing a wireless communication including an antenna, a transmitter, a receiver, a wireless communication protocol and an Internet browser; and

memory containing a first automatic identification indicia information of a biometric attribute of the specified user and software for executing a predetermined application.

(Currently Amended) The device of claim 1 wherein the further comprising 2. means for inputting the biometric attribute further comprises; means for deriving a second automatic identification indicia from said inputted biometric attribute; and means for comparing said second automatic identification indicia to the first automatic identification indicia and permitting the specified user access to the secure personal database in response to the second automatic identification indicia matching the first automatic identification indicia.

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3. (Previously Presented) The device of claim 1 further comprising a lens disposed

to project an image on said image sensor, a digital processing unit, and an input/output means for

transmitting the digital representation of a captured image to a remote device, wherein the digital

processing unit is integrated with a first memory and the image processing circuit interrogates

the captured image in real-time in said memory.

4. (Previously Presented) The device of claim 1 further comprising a supplemental

memory, a digital processing unit, a lens disposed to project an image on said image sensor, and

an input/output means for transmitting the digital representation of a captured image to a remote

device, wherein the digital processing unit is integrated with the memory, the supplemental

memory, and the real-time image processing circuit and stores the digital representation image in

one of the memory and the supplemental memory.

5. (Currently Amended) The device of claim 3, further comprising:

an interface for a voice/data communications channel to a networked computer server,

said communications channel comprising at least one of the group consisting of a cellular

telephone network, a satellite telephone network, a wide-area network, a local-area network, and

the Internet browser;

means for real-time scanning, decoding, and transmitting via the interface, information

encoded in an automatic identification indicia, said indicia being selected from among the group

consisting of bar codes, matrix codes, Optical Character Recognition (OCR), and Radio

Frequency Identification Tags (RFID);

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wherein the image processing circuit further comprises means for capturing single and

sequential digital images, and wherein the digital processing unit comprises means for

transmitting said images including data element identifiers via the interface strikeout through the

slash over the communications channel to a remote location;

wherein the personal database comprises personal identification and credit card, /debit

card or bank account information; and

a digital processor operable to transmit queries, receive textual and graphic responses,

execute secure purchase of goods or services, and remotely store records related to electronic

commerce transactions, and to execute the secure purchase of non-electronic commerce goods

and services;

wherein the multifunction multi-function integrated semiconductor device is incorporated

within a wireless communications product.

6. (Previously Presented) The device of claim 5 wherein the digital processor

further comprises means for generating and transmitting a digital security code based on an input

biometric attribute and incorporating data element identifiers.

7. (Previously Presented) The device of claim 5 wherein the digital processor

further comprises means for activating a large scale processing application on a remote server.

8. (Previously Presented) The device of claim 5 wherein the digital processor

further comprises means for securely executing personal financial transactions.

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9. (Currently Amended) A communications node comprising means for receiving a

transmission from a remotely authenticated user and incorporating data element identifiers

separating data elements including biometric and containing an automatic identification indicia

and personal data associated with a proposed financial transaction associated with said remotely

authenticated remote user, said automatic identification indicia being determined from a digital

representation of a biometric attribute of said remote user and distinct from said digital

representations and means for identifying said remotely authenticated user in response to said

biometric automatic identification indicia to permission executing said proposed financial

transaction.

10. (Currently Amended) The communications node of claim 9 further comprising a

database comprising a plurality of securely stored biometric automatic identification indicia

corresponding to a plurality of remotely authenticated remote users and a plurality of

permissioned financial transactions executed by said remotely authenticated users.

11. (Currently Amended) The communications node of claim 9 further comprising

means for verifying authorized access of the remotely authenticated the identity and authenticity

of the remote user associated with said received biometric automatic identification indicia

wherein the transmission is associated with said remote user conducting a financial transaction

and personal data said transmission includes remote user credit or debit account information.

12. (Currently Amended) The communications node of claim 9 wherein the

transmission includes data corresponding to a digital image, further comprising means for storing

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the <u>biometric</u> automatic identification indicia that corresponds to an received digital data corresponding to original digital image.

13. (Currently Amended) The communications node of claim 12, further comprising means for transmitting downloading to a plurality of remote display devices, said stored data corresponding to a digital image, said remote display devices being selected from among the group consisting of portable wireless communication devices, personal computers, and cable connected television sets.

14. (Currently Amended) A wireless communications system comprising:

a multi-function integrated semiconductor device comprising a single integrated circuit having:

an image sensor including a plurality of light sensitive pixels for capturing an image in still and full-motion digital imaging;

a real-time image processing circuit, responsive to the light sensitive pixels, having as an output a digital representation of the image captured separate from said image captured;

a digital processing unit;

an automatic identification circuit within the real-time processing circuit, responsive to a captured image, to generate an automatic identification indicia of a biometric attribute from a digitized image of said biometric attribute in real-time;

a personal database secured to all but a specified user;

means for inputting a the biometric attribute;

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means for providing a wireless communication including an antenna, a transmitter, a

receiver, a wireless communication protocol and an Internet browser;

a memory containing a first biometric attribute and software for executing a

predetermined application; and

a supplemental memory, a lens disposed to project an image on said image sensor, and an

input/output means for transmitting the digital representation of a captured image to a remote

device, wherein the digital processing unit is integrated with the second memory, the

supplemental memory, and the real-time image processing circuit in a single integrated circuit

module and said digital processing unit stores the captured image in one of the memory and the

supplemental memory; and

a communication node capable of receiving digital images transmitted via said module,

said communication node being remote from said module.

15. (Currently Amended) A portable wireless communications device comprising a

multi-function integrated semiconductor device having integrated in a single integrated circuit a

personal database secure to all but a specified user, a sensor responsive to a biometric attribute,

and a processor responsive to said biometric sensor and said secure personal database for

verifying a the biometric attribute of said specified user sensed by said biometric sensor, and

granting said specified user access to said secure personal database on biometric verification.

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16. (Previously Presented) The device of claim 15 further comprising means for

transmitting to a remote location a copy of said sensed biometric attribute in response to a failure

to verify said biometric attribute.

17. (Cancelled) A method of transacting commerce comprising:

providing a portable two-way communication device;

entering a product description including a price into said device;

accessing a remote database by a wireless communication channel;

searching said remote database for data including prices corresponding to said product;

comparing said pricing in said remote database and said stored product description;

selecting a product to be purchased; and

initiating a wireless transmission of personal financial data via a secure data transmission

including a biometric attribute to make the purchase.

18. (Cancelled) The method of claim 17 further comprising a completing the

financial transaction and receiving a transaction record number, and storing the transaction

number in the portable two-way communication device.

19. (Cancelled) The method of claim 17 wherein entering a product description

further comprises wirelessly sensing data corresponding to a product identification code and

automatically identifying a product description therefrom.

20. (Cancelled) The method of claim 19 wherein wirelessly sensing data further

comprises optically scanning in an image.

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(Cancelled) The method of claim 17 wherein selecting a product to be purchased 21.

further comprises selecting one of the entered product description or a product description from

said remote database.

A method of transacting commerce comprising: employing a 22. (Cancelled)

portable two-way communication device storing personal financial data in said device; entering

one of a biometric attribute and a personal identification code ("PIN") into said communication

device, authenticating a user based on the entered one of the biometric attribute and PIN and, in

response to authenticating the user, transmitting personal financial data to complete the

transaction without surrendering physical custody the device containing the personal financial

data.

(Currently Amended) The device of claim 1 wherein the real time automatic 23.

identification circuit is further responsive to said captured digitized image to identify a non-

biometric automatic identification indicia coded within the digitized image.

The device of claim 23 wherein the non-biometric 24. (Currently Amended)

automatic identification indicia is selected from among the group consisting of a bar code, a

matrix code, optical character recognition, a handwritten message, a typed message, a symbol, a

signature, and a radio frequency identification tag.

The communications node of claim 9 wherein the 25. (Currently Amended)

transmission receiving means further comprises means for receiving a non-biometric automatic

identification indicia determined from information coded within the a digitized image.

(Currently Amended) The communications node wireless communication system 26.

of claim 25 wherein the non-biometric automatic identification indicia is selected from among

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the group consisting of a bar code, a matrix code, optical character recognition, a handwritten

message, a typed message, a symbol, a signature, and a radio frequency identification tag.

27. (Currently Amended) The device of claim 14 wherein the real time-automatic

identification circuit is further responsive to said captured digitized image to identify a non-

biometric automatic identification indicia coded within the digitized image.

28. (Currently Amended) The device of claim 27 wherein the non-biometric

automatic identification indicia is selected from among the group consisting of a bar code, a

matrix code, optical character recognition, a handwritten message, a typed message, a symbol, a

signature, and a radio frequency identification tag.

29. (Currently Amended) The portable wireless communication system of claim 15

wherein the processor further comprises an automatic identification circuit responsive to a

captured image to identify a non-biometric automatic identification indicia coded within the

digitized image, said non-biometric automatic identification indicia being selected from among

the group consisting of a bar code, a matrix code, optical character recognition, a handwritten

message, a typed message, a symbol, a signature, and a radio frequency identification tag.

30. (New) A communication node comprising:

means for receiving a transmission from a remotely authenticated user, said transmission

including a biometric automatic identification indicia associated with said remotely authenticated

user, and personal data of said remotely authenticated user associated with a proposed financial

transaction; and

means for identifying said remotely authenticated user in response to said received

biometric automatic identification indicia to enable execution of said proposed financial

transaction.

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(New) The communication node of claim 30, wherein said personal data is 31.

selected from among the group consisting of a credit account information, a debit account

information, a bank account information, a driver's license number, and a social security

number.

(New) The communication node of claim 30, wherein said proposed financial 32.

transaction further comprises a purchase of non-electronic commerce goods and services.

33. (New) The communication node of claim 30, wherein said receiving means

further comprises means for identifying in said transmission information encoded in an

automatic identification indicia.

The communication node of claim 33, wherein said automatic 34. (New)

identification indicia is selected from among the group consisting of a bar code, a matrix code, a

two dimensional matrix or bar code, an item identification code (UPC), an NDC number, optical

character recognition, a handwritten message, a typed message, a symbol, a signature, and radio

frequency identification tags.

(New) The communications node of claim 10, further comprising means for 35.

transmitting to a plurality of remote display devices said stored financial transaction records, said

remote display devices being selected from among the group consisting of portable wireless

communication devices, personal computers, and cable connected televisions sets.

(New) The device of claim 15 further comprising means for transmitting to a 36.

remote location said biometric automatic identification indicia in response to a failure to verify

said biometric attribute.

(New) The device of claim 5, further comprising: 37.

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means for real-time scanning, decoding, and transmitting via the interface, information

encoded in an automatic identification indicia, said indicia being selected from among the group

consisting of bar codes, matrix codes, Optical Character Recognition (OCR), a handwritten

message, a typed message, a symbol, a signature, and Radio Frequency Identification Tags

(RFID).

(New) A multi-function integrated semiconductor device comprising: 38.

a single integrated circuit containing:

an image sensor including a plurality of light sensitive pixels for capturing an image in

still and full-motion digital imaging;

a real-time image processing circuit, responsive to the light sensitive pixels, having as an

output a digital representation of the image captured;

an automatic identification circuit within the real-time image processing circuit,

responsive to a captured image, and further responsive to said captured digitized image to

identify a non-biometric automatic identification indicia coded within the digitized image;

means for providing a wireless communication including an antenna, a transmitter, a

receiver, a wireless communication protocol; and

memory and supplemental memory for executing a predetermined application.

39. (New) The device of claim 38 wherein the non-biometric automatic identification

indicia is selected from among the group consisting of a bar code, a matrix code, optical

character recognition, a handwritten message, a typed message, a symbol, a signature, and a

radio frequency identification tag.